SECONDARY SCIENCE ENDORSEMENT

Checklist of Minimum Requirements
College Course Work, Approved Professional Development, and
Clearly Demonstrated Competency can be used as qualifying factors

Name: _____ School/District: _____

Major/Minor: _____ Social Security #: _____

Science Endorsement(s) to be considered: _____

PHONE(S): WORK: _____ HOME: _____

Mailing Address: _____

Email Address: _____

Applicant must have a current Educator License with an Elementary or Secondary area of concentration.

☐ FOR ENDORSEMENT (must complete all requirements) **OR**
☐ FOR STATE APPROVED ENDORSEMENT PLAN (2 YEAR) (must have current license)
Do you have a current Utah Teaching License? Yes ☐ No ☐ Have applied, is pending ☐

Date Submitted: _____ Date Reviewed: _____

There are seven (7) endorsements in science issued to the Secondary Licenses. They are: (1) **Biological Science**; (2) **Earth Science**; (3) **Physical Science**; (4) **Integrated Science**; (5) **Chemistry;** (6) **Physics;** and (7) **Environmental Science**. The **minimum requirement** for each is a minor or its equivalent. The exceptions to this are Biology, Physical Science, and Integrated Science in which there is no approved minors, only a composite major or its equivalent. An Earth Science endorsement may be gained through a composite major or equivalent. (NOTE: The attached paper shows the relationship of the science core teaching assignments, endorsements, and majors/minors to qualify for each endorsement.)

Complete Appropriate Section(s)

Please place the course number that corresponds to the course filling each requirement in the box provided and highlight the course on your transcript. **Each box must have a course number for the requirement to be satisfied.** To convert quarter hours to semester hours, multiply the number of quarter hours by .666.

- When there is more than one box next to a requirement, there are additional courses required.
- Acceptable lines of evidence include:
  - Approved professional development
  - University or college course work
  - Clearly demonstrated competency
- Attach an original copy of your transcripts and highlight corresponding classes.
- **Send the highlighted transcript and the completed form along with a $15.00 processing fee to:**

Utah State Office of Education
Attn: Sheri Lowry
Educator Licensing
250 East 500 South
P O Box 144200
Salt Lake City, UT 84114-4200

For more information contact: Ken O'Brien, Science Specialist, ko'brien@usoe.k12.ut.us

No Child Left Behind Designations for Teachers

Highly Qualified (HQ) Not Highly Qualified (NHQ)

1. Designation is based upon degree Teaching in Field Or Outside of Field	2. Appropriate Endorsement Completed	3. Currently on SAEP
_ In Field	HQ	NHQ
_ Outside Field	NHQ	NHQ
Outside Field with Major Equivalency (30 Approved Semester Hours) OR Endorsement plus 200 HOUSSE Points	HQ	NHQ

- A teacher is teaching "Infield" when they have a major in Science.
- A teacher is deemed to have "Major Equivalency" when they have 30 semester hours of approved course work that meets current USOE endorsement guidelines.
- A teacher is deemed to be HQ upon verification of appropriate endorsement plus 200 HOUSSE points specific to the endorsement subject.

The following outlines the minimum requirements for each endorsement:

BIOLOGICAL SCIENCE

☐ General Biology OR General Zoology AND General Botany

☐ ☐ Zoology (e.g., Invertebrate, Vertebrate, Entomology)

☐ ☐ Botany (e.g., Plant Kingdom, Plant Taxonomy, Plant Physiology)

☐ Microbiology

☐ Human Anatomy and Physiology

☐ Heredity/Genetics

☐ Ecology (e.g., Ecology, Environmental Studies)

☐ Chemistry

☐ Teaching Methods in Science

PHYSICAL SCIENCE

- ☐ ☐ ☐ Principles of Chemistry
- ☐ Advanced or Applied Chemistry (e.g., Organic, Physical Chemistry, Biochemistry, etc)
- ☐ ☐ ☐ General Physics (including Mechanics, Electricity, Magnetism, Heat, Sound, and Light)
- ☐ Advanced or Applied Physics (Modern Physics, Upper division physics,
- ☐ ☐ Geology/Earth Science (e.g., Ecology, Weather/Meteorology, Astronomy, Earth Systems, Historical, Structural, or Physical Geology)
- ☐ Teaching Methods in Science
- ☐ Safety Certification

EARTH SCIENCE

- ☐ ☐ ☐ Geology (e.g., Physical Geology, Surficial Geology/Geomorphology, Historical Geology, Rocks & Minerals/Mineralogy, Plate Tectonics)
- ☐ ☐ ☐ General Physics (including Mechanics, Electricity, Magnetism, Heat, Sound, and Light)
- ☐ ☐ ☐ Principles of Chemistry
- ☐ Astronomy
- ☐ Ecology (e.g., Ecology, Conservation, Environmental Studies)
- ☐ Weather/Meteorology
- ☐ Teaching Methods in Science

INTEGRATED SCIENCE

☐ Teacher must have a science endorsement for Biological Science, or Earth Science, or Physical Science plus the following course work that may have been part of an existing endorsement

- ☐ General Biology OR General Botany AND General Zoology
- ☐ Ecology (e.g., Ecology, Environmental Studies)
- ☐ Heredity/Genetics
- ☐ ☐ Chemistry
- ☐ General Physics
- ☐ Astronomy
- ☐ Earth Systems Science (e.g.., Oceanography, “Earth Systems,” Climatology)
- ☐ Geology (e.g., Historical, Structural, Physical Geology, Rocks & Minerals)

ENVIRONMENTAL SCIENCE

- ☐ General Biology OR General Zoology AND General Botany
- ☐ Zoology (e.g., Invertebrate, Vertebrate, Entomology)
- ☐ Botany (e.g., Plant Kingdom, Plant Taxonomy, Plant Physiology)
- ☐ ☐ Ecology (e.g., Ecology, Environmental Chemistry, Environmental Studies)
- ☐ ☐ Principles of Inorganic Chemistry
- ☐ Organic Chemistry
- ☐ Evolutionary Biology
- ☐ Earth Systems Science (e.g., Oceanography, "Earth Systems," Climatology)
- ☐ Geology (e.g., Historical, Structural, Physical Geology, Rocks & Minerals)
- ☐ Statistics
- ☐ Teaching Methods in Science

CHEMISTRY

- ☐ ☐ ☐ Principles of Chemistry
- ☐ ☐ ☐ Organic Chemistry
- ☐ One other course beyond Principles and Organic Chemistry (Biochemistry, Physical Chemistry, Advanced Inorganic, Quantitative Analysis)
- ☐ Teaching Methods in Science

PHYSICS

- ☐ ☐ ☐ General Physics (including Mechanics, Electricity, Magnetism, Heat, Sound, and Light)
- ☐ ☐ Modern Physics (e.g., Atomic and Molecular Theory, Quantum Mechanics, Solid State)
- ☐ Math through Introductory Calculus
- ☐ Teaching Methods in Science

SCIENCE

	CORE TEACHING ASSIGNMENT	APPROVED ENDORSEMENT(S)
Grade 7	Seventh Grade Integrated Science 08-05-00-00-001	(1) Biological Science OR (2) Integrated Science
Grade 8	Eighth Grade Integrated Science 08-05-00-00-010	(1) Earth Science OR (2) Physical Science OR (3) Integrated Science
Grade 9	Earth System 08-04-00-00-010	(1) Earth Science OR (2) Integrated Science OR (3) Environmental Science
Biological Science	Biology 08-02-00-00-010 Biology-Human 08-02-00-00-050 Biology: Agricultural Science and Technology 08-02-00-00-020	(1) Biological Science
Chemistry	Chemistry—Grades 9-12 08-03-00-00-010	(1) Chemistry OR (2) Physical Science
Physics	Physics 08-06-00-00-020 Principles of Technology 08-06-00-00-020	(1) Physics OR (2) Physical Science
Advanced Placement Courses	A.P. Biology 08-02-00-00-001 A.P. Chemistry 08-03-00-00-001 A.P. Physics 08-06-00-00-001 A.P. Environmental Science 08-04-00-00-001	(1) Biological Science (1) Chemistry (1) Physics (1) Environmental Science

GRADES K-6	The only credential for an elementary teacher to teach science is an elementary license. However, it is strongly recommended that an elementary teacher have specific training in life science, earth-space science, and physical science to adequately teach the K-6 science core.

* Requires Principles of Technology inservice training in addition to the science endorsement.